

REMARKS

Claims 1-3 and 14 have been amended. Support for claim amendments can be found at FIG. 8, for example. New claims 17 and 18 have been added. Support for new claims 17 and 18 can be found at FIGS. 8 and 12A-12G, and pages 21 and 22 of the specification. Claims 4-13 and 15-16 have been cancelled without prejudice or disclaimer.

Claims 1-3, 14 and 17-18 are pending and under consideration. Reconsideration is respectfully requested.

I. REJECTION OF CLAIMS 1 AND 2 UNDER 35 U.S.C. § 102(b) AS BEING ANTICIPATED BY TAGA ET AL. (JP 11-204866 – US PATENT NO. 6,377,375 ENGLISH TRANSLATION; HEREINAFTER “TAGA”):

The present invention, as recited in claim 1, for example, relates to an optical device which comprises a branching filter which separates wavelength division multiplexed signal lights into first and second groups, each group consisting of a plurality of wavelength groups which do not neighbor the wavelength groups belonging to the other group on the wavelength axis. The optical device, as recited in claim 1, further comprises a functional circuit that functionally processes the wavelength groups on a wavelength group-by-group basis of the separated first and second groups, and a multiplexer connected to the branching filter through the functional circuit for synthesizing the separated first and second wavelength groups.

Taga fails to disclose “separates wavelength division multiplexed signal lights into first and second groups, each group consisting of a plurality of wavelength groups,” as recited in claim 1. Therefore, Taga also fails to disclose “each group consisting of a plurality of wavelength groups which do not neighbor the wavelength groups belonging to the other group on the wavelength axis, as recited in claim 1.

Instead, Taga discloses an amplifying repeater capable of doubling the number of wavelength division multiplexed signal lights (see column 1, line 65 to column 2, line 1) and discloses only two band groups of wavelength 1.3 μm and wavelength 1.55 μm (see column 3, line 56 – column 4, line 19).

II. REJECTION OF CLAIM 14 UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER TAGA IN VIEW OF CAO (U.S. PATENT NO. 6,263,126):

The comments mentioned above in section I regarding Taga, may also be applied here.

At page 2 of the Office Action, the Examiner admits that Taga does not teach specifics about the bands that are separated. However, the Examiner asserts that Cao discloses a first filter to separate the signal into odd and even bands and then use a second filter in order to provide a larger separation between channels and avoid noise of adjacent channels since Cao teaches that in the prior art adjacent channels similar to Taga are used.

In FIG. 6 of Cao, wavelength division multiplexed signal lights of wavelength λ_1 - λ_{16} are separated into odd and even numbered wavelength signal lights. However, the Applicants respectfully submit that each separated odd and even numbered wavelength signal light of Cao is not in any "group consisting of a plurality of wavelength signals" as recited in amended claim 14.

Further, at FIG. 6, Cao discloses a group of odd and even numbered wavelength signals simultaneously separated at the first stage and therefore, Cao fails to disclose "a second branching filter to sequentially separate the wavelength division multiplexed signal lights of a plurality of odd numbered or even numbered wavelength groups, each wavelength group consisting of a plurality of wavelength signals, after the separation by the first branching filter," as recited in amended claim 14 (see FIG. 8 of the present invention).

Thus, Taga and Cao, individually or combined, fail to disclose all of the features recited in claim 14, as mentioned above. Therefore, the combination of Taga and Cao fails to establish a prima facie case of obviousness over the present invention.

Therefore, it is respectfully submitted that the rejection is overcome.

III. REJECTION OF CLAIM 3 UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER TAGA IN VIEW JP11-88263:

Claim 3 depends from claim 1, therefore, the comments mentioned above in section I, may also be applied here.

IV. CONCLUSION:

In view of the foregoing amendments and remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore, defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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